KEMMERIKH, A.P., kand.geograficheskikh nauk

Floods caused by rains. Priroda 49 no.7:126-127 Jl '60.
(MIRA 13:7)

1. Institut geografii AN SSSR, Moskva.
(Floods) (Rain and rainfall)

KAYETANOVICH, Mikhail Mikhaylovich, inzh.; KEMMERIKH, Maks Al'fredovich, inzh.; KOFMAN, Karl Davydovich, inzh.; PROSHCHIN, Yevgeniy Alekseyevich, inzh. [deceased]; SOLOV'YEV, Petr Fedorovich, inzh.; KHROMCHENKO, Grigoriy Yefimovich, inzh.; SMIRNOV, A.D., inzh., obshchiy red.; SOLOV'YEV, P.F., inzh., obshchiy red.; SAPAROVA, A.L., red.; VORONIN, K.P., tekhn.red.

[Machines and devices for electrical work] Mekhanizmy i prisposobleniia dlia elektromontazhnykh rabot. Izd.2., perer. i dop. Moskva, Gos.energ.izd-vo, 1959. 512 p. (Spravochnik elektromontera, no.6) (MIRA 12:6)
(Electric engineering--Equipment and supplies)

KEMERTELIDZE, E.P.

Cardiac glycosides of Digitalis ciliata Trautv. Report No.2. Acetyldigitoxin. Khim. prirod. soed. no.6:379-382 '65. (MIRA 19:1)

1. Institut farmakokhimii imeni Kutateladze AN GruzSSR i Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut. Submitted July 7, 1965.

KEMNITS, V., inzh.

Needed types of fire engines. Pozh.delo 6 no.12:26 D '60.
(MIRA 13:12)

(Fire engines)

KEMNITS, Yu.V.

ALEKSANDROV, Nikolay Nikolayevich; VZNUZDAYEV, Sergey Vasil'yevich; DVORYANKOV, Sergey Mikhaylovich; KEMNITS, Yuriy Vladimirovich; MASLOV, Aleksey Vasil'yevich; MURASHEV, Sergey Iustinovich; SOBKRAYSKIY, Konstantin Stanislavovich; MURASHEV, S.A., redaktor; KHROMCHENKO, F.I., redaktor izdatel'stva; KUZ'MIN, G.M., tekhnicheskiy redaktor

[Precise calculations in topographical surveys of irrigation districts] Raschety tochnosti topograficheskikh s"emok v raionakh orosheniia. Moskva, Izd-vo geodezicheskoi lit-ry, 1956. 48 p. (MLRA 10:1)
(Topographical surveying)
(Irrigation)

KEPPITS, Yu. V,

KEPPITS, Yu. V.: "An evaluation of the precision of equiprecise geodetic measurements with non-Gaussian distributions of errors." Min Higher Education USSR. Moscow Inst of Land Management. Moscow, 1956. (Dissertations for the Degree of Candidate in Technical Sciences).

SO: Knizhnaya letopis' No. 22, 1956

KEMNITS, Yu.V.

Bearing distortion in aerial photographs due to regional relief features as represented by vertically taken photographs. Geod.i kart. no.7:17-20 S '56. (MLRA 9:11)
(Photography, Aerial)

KEMNITS, Yu. V.

6-10-3/12

AUTHOR: Kemnits, Yu.V., Candidate of Technical Sciences

TITLE: On the Function of Measuring Error Distribution (O funktsii raspredeleniya oshibok izmereniy)

PERIODICAL: Geodeziya i Kartografiya, 1957, Nr 10, pp 21-29 (USSR)

ABSTRACT: For the measuring error theory the question as to what probability distribution is followed by the errors in the results of direct measurements is of great importance. The so-called normal distribution according to Gauss is rejected in principle by many, among them by the well-known English scientist Eddington, who developed a theory of his own. On the strength of an example taken from practice it is proved here that this theorem is, in practice, of no particular value. It is of value only in such cases in which measuring errors obey a distribution with a positive excess. The statistical treatment of 14 voluminous geodetical and astronomical measurements (by the author) showed that in most cases the series investigated show a negative excess, even though they satisfy the conditions at which Eddington's theorem enters into force. The technique of computing excesses is explained here. The causes which lead to the existence of measuring series with negative excesses are then pointed out. Summarizing the following is said:
1.) From Eddington's theorem and the investigations mentioned here it follows that, in the case of statistical treatment of the geometrical measuring series in the case of empirical error distribu-

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On the Function of Measuring Error Distribution 6-10-3/12

tions deviations from the normal type must be observed, and that these deviations are characterized by positive and negative excesses, the latter occurring more frequently.
2.) If the rule of the double or triple average square of errors is applied to measurements with a distribution with a considerable positive excess, an exaggeratedly high evaluation of measuring accuracy takes place. 3.) In the case of the evaluation of the accuracy of geodetical measurements taking place with the development of wide supporting nets it is advisable, in addition to the average square of errors, to compute also the excess and its average square of errors. The latter may, to a certain extent, serve as a criterion for the justification of using a classical rule for the calculation of error limits. There are 2 figures and 2 tables.

AVAILABLE: Library of Congress

Card 2/2

3(4)
AUTHOR: Kemnits, Yu. V., Assistant

SOV/154-58-5-8/18

TITLE: Generalized Formula for the Mean Square Deviation of a Non-Linear Function (Obobshchennaya formula sredney kvadraticheskoy oshibki nelineynoy funktsii)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1958, Nr 5, pp 75 - 81 (USSR)

ABSTRACT: The general formula(1) is given from which the mean square deviation of an explicit function, formula (2), is calculated. Formula (1) can, however, not be applied directly to finding the mean square deviation of implicit functions. This problem can be approached by two ways. 1) The given system of equations (3) is solved by a transformation to the system (4) and a subsequent application of formula (1) to the explicit functions (4). In some cases this procedure is too complicated. Hence the second method is generally preferred. Equations (3) are differentiated and the system of differential equations thus obtained is solved with respect to $dy_1, dy_2 \ldots, dy_n$, the latter being approximately replaced by the increments which are regarded as the actual errors.

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Finally the solution is obtained according to formula (1). It is pointed to the fact that it is expedient to utilize the determinants of Ostrogradskiy. They are actually the Jacobi (Yakobi) determinants which in Russian usage are called determinants of M. V. Ostrogradskiy, Academician, as these determinants were first investigated by him. The general formula (9) is derived, which is the exact mathematical expression specifying the second method. This method reduces the solution of the problem to the application of an algorithm, which is based upon the determinants mentioned. There are 1 figure and 3 Soviet references.

ASSOCIATION: Moskovskiy institut inzherenov zemleustroystva (Moscow Institute of Commassation Engineers)

SUBMITTED: April 14, 1958

KEMNITS, YU. V.

7

3 (4)

AUTHOR: None Given SOV/6-59-5-24/26

TITLE: Chronicle (Khronika)

PERIODICAL: Geodeziya i kartografiya, 1959, Nr 5, p 76 (USSR)

ABSTRACT: From March 17, to 20, 1959, the regular conference was held at the Moskovskiy institut inzhenerov zemleustroystva (Moscow Institute of Land Survey Engineers). The conference was attended by about 400 representatives of schools, scientific research institutes, and various production organizations. In the plenary assembly, the following papers were read: Professor S. A. Udachin, Corresponding Member of the VASKhNIL (All-Union Academy of Agricultural Sciences imeni V. I. Lenin), "Tasks of Land Survey and Land Survey Science in the Light of the Resolutions of the 21st Party Congress of the CPSU." A. T. Panfilov, Representative of the Ministerstva sel'skogo khozyaystva SSSR (Ministry of Agriculture of the USSR), "Basic Problems of Land Survey in the USSR." Professor N. V. Bochkov "Problems of Registration and of the Investigation of Soils in the Kolkhoz." In the Land Survey Section, 10 papers were read. - In the Geodetic Section, the following papers were read:

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Ye. G. Larchenko, Doctor of Technical Sciences, "On the Approximation Method for the Estimation of the Accuracy of Calculation Results." Yu. V. Kemnits, Candidate of Technical Sciences, "New Patterns for the Solution of Normal Equations" - M. Kh. Musafarov, Candidate of Technical Sciences, "Employment of the Indications of the Radio Altimeter for the Compilation of Approximately Oriented Photographic Maps." Ya. I. Gebgart, Candidate of Technical Sciences, "Production of Plans by the Aid of a Compiling Device." N. M. Pasel'skiy, Engineer of the Tsentral'noye predpriyatiye sel'khozaerosyemki (Central Establishment for Agricultural Aerial Photography), "Experience Gained in the Production of Plans of a Mountainous Terrain for Agricultural Purposes, With the Employment of Topographical Maps." - Ya. I. Yurovskiy, Candidate of Technical Sciences, and Post-Graduate Student K. A. Zykov "On the Application of the Radio-geodetic System of the TsNIIGAiK (Central Scientific Research Institute of Geodesy, Aerial Survey and Cartography) to Aerial Photography." - Headmaster P. M. Tsaplev "Chances of the Use of a Leveling Instrument With a Self-adjusting Line of Sight in Geodetic Work for Agriculture."

Card 2/2

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16.6100

AUTHOR: Kemnits, Yu.V.

TITLE: On a deduction of a formula for the law of distribution of the probabilities of random errors of the results of measurements

PERIODICAL: Referativnyy zhurnal. Matematika, no.7, 1960, 185. Abstract no.8061. Tr.Mosk.in-ta inzh.zemleustroystva, 1959, vyp.3, 97-101

TEXT: Since Gauss and Laplace till to-day several authors try to explain the appearance of the normal distribution for errors of physical, biological and other measurements by any "general" properties and "obvious" analogies for a minimum of probability theoretical considerations. In the present paper the author states that he is not satisfied by one of these explanations.

[Abstracter's note: The above text is a full translation of the original Soviet abstract.]

Card 1/1

KEMNITS, Yu.V.

Interrelationship of values studied by means of the theory of errors and the method of least squares. Trudy MIIZ no.10: 111-122 '60. (MIRA 16:12)

ZIMOVNOV, Vsevolod Nikolayevich (1892-1957); prinimal uchastiye KEMNITS, Yu.V., starshiy prepodavatel'; MASLOV, A.V., red.; VASIL'YEVA, V.I., red. izd-va; ROMANOVA, V.V., tekhn. red.

[Method of least squares as applied to measurements associated with constant errors] Sposob naimen'shikh kvadratov v prilozhenii k izmereniiam, soprovozhdaiushchimsia postoiannymi pogreshnostiami. Podgotovleni k izdaniiu i dop. IU.V.Kemnitsem. Moskva, Izd-vo geodez. lit-ry, 1960. 56 p. (MIRA 14:7)

1. Kafedra geodezii Moskovskogo instituta inzhenerov zemleustroystva (for Kemnits).

(Least squares)

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S/154/60/000/003/003/006/XX
B012/B054

16.6200 16,6500 16.6100

AUTHOR: Kemnits, Yu. V., Candidate of Technical Sciences

TITLE: The Property of Compensation of Random Errors of Measurement

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1960, No. 3, pp. 45-49

TEXT: One of the most important fundamentals of the theory of errors of measurements is the so-called compensation of random errors. It is expressed by formula (1):

$$\lim_{\nu \to \infty} \frac{[\Delta]}{\nu} = 0,$$

on the premises that the tendency of $\frac{[\Delta]}{\nu}$ going to zero in this formula is not to be understood in the usual mathematical but in the statistical sense (Ref. 1, p. 40). In the present paper, the author studies the question which theoretical theses supports the statistical limit (1), and the actual meaning of the latter. To analyze the properties of random errors of measurement, the author first uses the theorem of Academician

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P. L. Chebyshev (Ref. 2, p. 162). This theorem reads: If the independent random quantities $x_1, x_2, \ldots, x_\nu$ show uniformly limited dispersions, i.e., if $D(x_i) < C \quad (i = 1, 2, \ldots, \nu)$, formula (2), then the probability p_ν tends to unity with an unlimited increase in the number of random ν and any $\varepsilon > 0$: formula (4), $\lim_{\nu \to \infty} p_\nu = 1$, where p_ν is the probability that formula (3) be satisfied: $\left| \frac{1}{\nu} \sum_{i=1}^{\nu} x_i - \frac{1}{\nu} \sum_{i=1}^{\nu} M(x_i) \right| < \varepsilon$, and M is the symbol for the expectation value. Formula (5): $\delta_\nu = \frac{[\Delta]}{\nu}$ is written down, and thus formula (6) is obtained from (3): $|\delta_\nu| < \varepsilon$. If the random errors $\Delta_1, \Delta_2, \ldots, \Delta_\nu$ of the independent equal observations are free from systematic errors, then p_ν tends to unity with an unlimited increase of ν. This is the thesis designated in geodetical publications as the property of compensation of random errors of measurement, which is expressed by formula (1) on the foregoing premises. Next, the author studies

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The Property of Compensation of Random Errors of Measurement

the statistical meaning of this limit. It follows from the law of large numbers that p_ν tends to unity. Nevertheless, it does not follow therefrom that the arithmetic mean (5) tends to zero. It is shown that - according to the law of large numbers - δ_ν need not tend to zero as its limit, even with the use of the impossibility of events of small probability. It is practically sure that, with an unlimited increase of ν and at a certain ν_ε, the arithmetic mean δ_ν becomes smaller in its absolute value than any number $\varepsilon > 0$. In the case of another variation, however, δ_ν may become larger than this number ε. Hence, it follows that the terms of the mathematical limit and the statistical limit must be strictly distinguished. It is therefore convenient to express formula (1) in the form of formula (9'):

$\lim\limits_{\nu \to \infty} st \frac{[\Delta]}{\nu} = 0$, where st means stochasticum and indicates that here the tendency toward zero exists in the stochastic sense (Ref. 3, p. 32). On the basis of the above statements, it is found that the property of

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The Property of Compensation of Random Errors of Measurement

compensation of random errors of measurement does not guarantee the tendency of the arithmetical mean δ_ν toward the exact value of the multiply measured physical quantity. It is pointed out that it is possible to define this property more perfectly. The theorem of Academician A. N. Kolmogorov (Ref. 2, pp. 173 and 280) is applied to this end. It expresses the so-called more rigorous law of large numbers. This theorem reads: If independent random quantities $x_1, x_2, \ldots, x_\nu$ show dispersions which satisfy the condition $\sum_{\nu=1}^{\infty} \frac{D(x_\nu)}{\nu^2} < +\infty$, then formula (11) holds:

$$P\left\{\lim_{\nu\to\infty} \left(\frac{1}{\nu}\sum_{i=1}^{\nu} x_i - \frac{1}{\nu}\sum_{i=1}^{\nu} M(x_i)\right) = 0\right\} = 1,$$ i.e., the difference between the arithmetic mean of these quantities and the arithmetic mean of their expectation values shows, with an unlimited increase of ν, a limit equal to zero with a probability equal to unity. In this theorem, the limit is understood in the mathematical sense. Here, this theorem is applied to the investigation of errors of equal independent observations which are free from systematical errors, and formula (12) is obtained:

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The Property of Compensation of Random Errors of Measurement

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$P\left\{\lim_{\nu\to\infty}\frac{[\Delta]}{\nu}=0\right\}=1$. Thus, on the basis of the more rigorous law of large numbers, the author obtains a result which indicates a mathematical limit in formula (1) with a probability equal to unity. It is, however, pointed out that the mathematical limit is not a necessary consequence, i.e., the result obtained does not prove that this limit exists invariably in all practical cases. There are 4 Soviet references.

ASSOCIATION: Moskovskiy institut inzhenerov zemleustroystva (Moscow Institute of Land Survey Engineers)

SUBMITTED: June 19, 1959

Card 5/5

KEMNITS, Yuriy Vladimirovich; MASLOV, A.V., doktor tekhn. nauk, red.; KHROMCHENKO, F.I., red. izd-va; KUZ'MIN, G.M., tekhn. red.

[Theory of errors in measurements] Teoriia oshibok izmerenii. Moskva, Izd-vo geodez.lit-ry, 1961. 111 p. (MIRA 14:6)
(Errors, Theory of) (Mensuration)

KEMNITS, Yu.V., kand. tekhn.nauk

Estimation of the accuracy of measurements with an allowance limiting the misclosure of conditional equations. Izv. vys. ucheb. zav.; geod. i aerof. no.2:17-26 '61. (MIRA 14:6)

1. Moskovskiy institut inzhenerov zemleustroystva.
(Errors, Theory of)

KEMNITS, Yu.V., starshiy prepodavatel', kand.tekhn.nauk

Generalized formulas for estimating the accuracy of the mean square error. Izv. vys. ucheb. zav.; geod. i aerof. no.5: 21-24 '61. (MIRA 15:3)

1. Moskovskiy institut inzhenerov zemleustroystva.
(Errors, Theory of)

KEMNITS, Yu.V., kand.tekhn.nauk

A characteristic property of random errors in measurements of unequal accuracy. Izv. vys. ucheb. zav.;geod. i aerof. no.2:33-36 '62. (MIRA 15:9)

1. Moskovskiy institut inzhenerov zemleustroystva.
(Surveying) (Errors, Theory of)

BURMISTROV, Georgiy Alekseyevich; KEMNITS, Yu.V., retsenzent; LITVINOV, B.A., retsenzent; GORDEYEV, A.V., red.; SHURYGINA, A.I., red. izd-va; ROMANOVA, V.V., tekhn. red.

[Principles of the method of least squares] Osnovy sposoba naimen'shikh kvadratov. Moskva, Gosgeoltekhizdat, 1963. 391 p. (MIRA 16:6)

(Least squares)

KEMNITS, Yuriy Vladimirovich; MASLOV, A.V., red.

[Determination of the parameters of empirical formulae by the method of least squares] Opredelenie parametrov empiricheskikh formul metodom naimen'shikh kvadratov. Moskva, Nedra, 1964. 195 p. (MIRA 17:10)

KEMNITS, Yu.V., dotsent, kand. tekhn. nauk

Some statistical characteristics of mean square errors. Izv. vys. ucheb. zav.; geod. i aerof. no.5:29-37 '63.
(MIRA 17:8)

1. Moskovskiy institut inzhenerov zemleustroystva.

KEMNITS, Yu.V., doktor tekhn. nauk

Evaluation of the precision of survey measurements by errors of closure in conditional equations. Izv. vys. ucheb. zav.; geod. i aerof. no.2:3-12 '65. (MIRA 18:10)

1. Moskovskiy institut inzhenerov zemleustroystva. Submitted February 16, 1965.

ACCESSION NR: AP4012539 S/0056/64/046/001/0165/0166

AUTHORS: Kemoklidze, M. P.; Mamaladze, Yu. G.

TITLE: On the irrotational region in rotating HeII

SOURCE: Zhurnal eksper. i teoret. fiz., v. 46, no. 1, 1964, 165-166

TOPIC TAGS: helium II, rotating helium, rotating helium II, irrotational region, Onsager Feynman vortices, quantum liquid, superfluidity

ABSTRACT: It is shown that an irrotational region is produced not only when helium rotates between two cylinders, but also in an ordinary rotating vessel. The irrotational region surrounds the central usual quantized Onsager-Feynman vortex, and the diameter of this region is somewhat larger than the distances between the remaining vortices. An approximate calculation yields an estimate of 0.8 mm for the radius of this region at T = 0°K, whereas the experi-

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ACCESSION NR: AP4012539

mental value is 1 mm at T = 1.38° at a rotation velocity $\omega_0 = 1\ sec^{-1}$.
Orig. art. has: 2 tables.

ASSOCIATION: Institut fiziki AN GruzSSR (Physics Institute, AN GruzSSR)

SUBMITTED: 06Aug63 DATE ACQ: 26Feb64 ENCL: 00

SUB CODE: PH NO REF SOV: 002 OTHER: 001

Card 2/2

ACCESSION NR: AP4019250 S/0056/64/046/002/0804/0806

AUTHORS: Kemoklidze, M. P.; Mamaladze, Yu. G.

TITLE: On the shape of the meniscus of rotating He II

SOURCE: Zhurnal eksper. i teor. fiz., v. 46, no. 2, 1964, 804-806

TOPIC TAGS: liquid helium, helium II, superfluidity, quantum liquid, quantized vortex filaments, irrotational region, liquid helium meniscus, liquid helium free surface

ABSTRACT: The hydrodynamic equations of rotating He II are analyzed in order to clarify the character of their stationary solution and the form of the meniscus of the rotating liquid. This study was undertaken in view of the failure of earlier attempts to relate the conical funnel on the meniscus rotation axis with the formation of an irrotational rotating region surrounding a central vortex. It is shown that in the presence of a free surface (such as in an un-

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ACCESSION NR: AP4019250

covered vessel) the rotation of the He II cannot be homogeneous, because of the bending of the quantized vortex lines as they emerge from the non-planar surface. This in turn causes depression of the meniscus near the axis of rotation. The assumption of weak inhomogeneity of rotation and the small curvature of the meniscus do not lead to quantitative conclusions as yet, but calculations with allowance for these factors are under way. Orig. art. has: 13 formulas.

ASSOCIATION: Institut fiziki AN GruzSSR (Institute of Physics, AN GruzSSR)

SUBMITTED: 06Aug63 DATE ACQ: 27Mar64 ENCL: 00

SUB CODE: PH NO REF SOV: 005 OTHER: 000

Card 2/2

ACCESSION NR: AP4037581 S/0056/64/046/005/1677/1679

AUTHOR: Kemoklidze, M. P.; Khalatnikov, I. M.

TITLE: Hydrodynamics of rotating helium II in an annular channel

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 5, 1964, 1677-1679

TOPIC TAGS: helium II, rotating helium II, annular channel, Feynman vortex, irrotational region, Feynman vortex region

ABSTRACT: Following the original work by Bendt and Oliphant (Phys. Rev. Lett. v. 6, 213, 1961 and Phys. Rev. v. 127, 1441, 1962), a variational method is used to derive an equation for the general description of the velocity fields in rotating helium II with annular configuration. It is shown that the Feynman vortices have an uneven distribution in an annular channel, and the liquid helium breaks up into two regions, one inside, without Feynman vortices in which the superfluid liquid rotates in irrotational fashion with a circulation much larger than the circulation quantum h/m, and an outside region, containing a uniform system of Feynman vortices and rotating like a rigid body. The radius of the boundary between the two regions

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ACCESSION NR: AP4037581

is estimated. The shape of the meniscus is also investigated and is found to differ little from plane, approaching parabolic with increasing speed of rotation. "We are grateful to Yu. G. Mamaladze for a discussion of the results." Orig. art. has: 7 formulas.

ASSOCIATION: Institut fizicheskikh problem AN SSSR (Institute of Physics Problems, AN SSSR)

SUBMITTED: 25Jul63 ATD PRESS: 3078 ENCL: 00

SUB CODE: IC, ME NO REF SOV: 000 OTHER: 002

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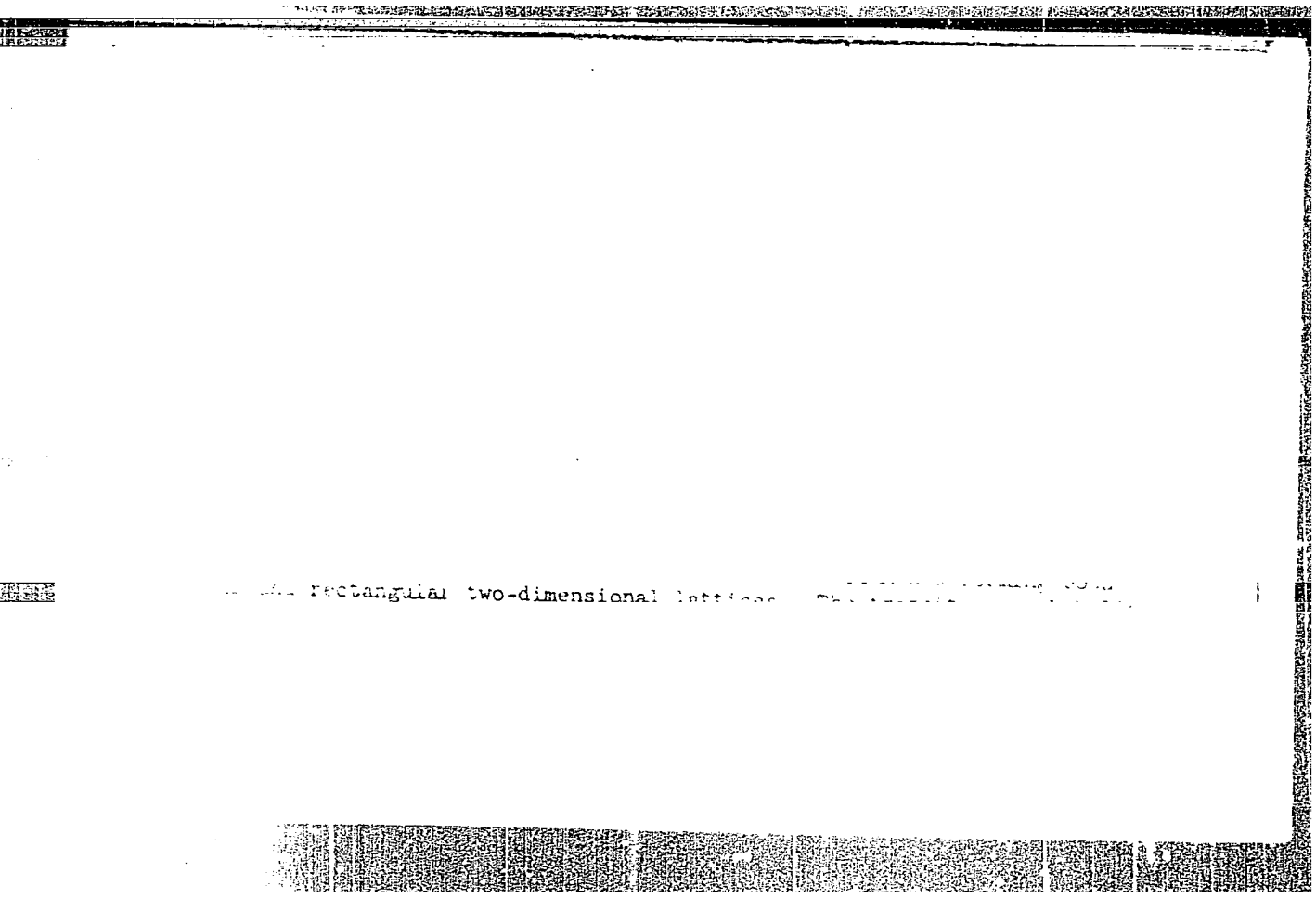

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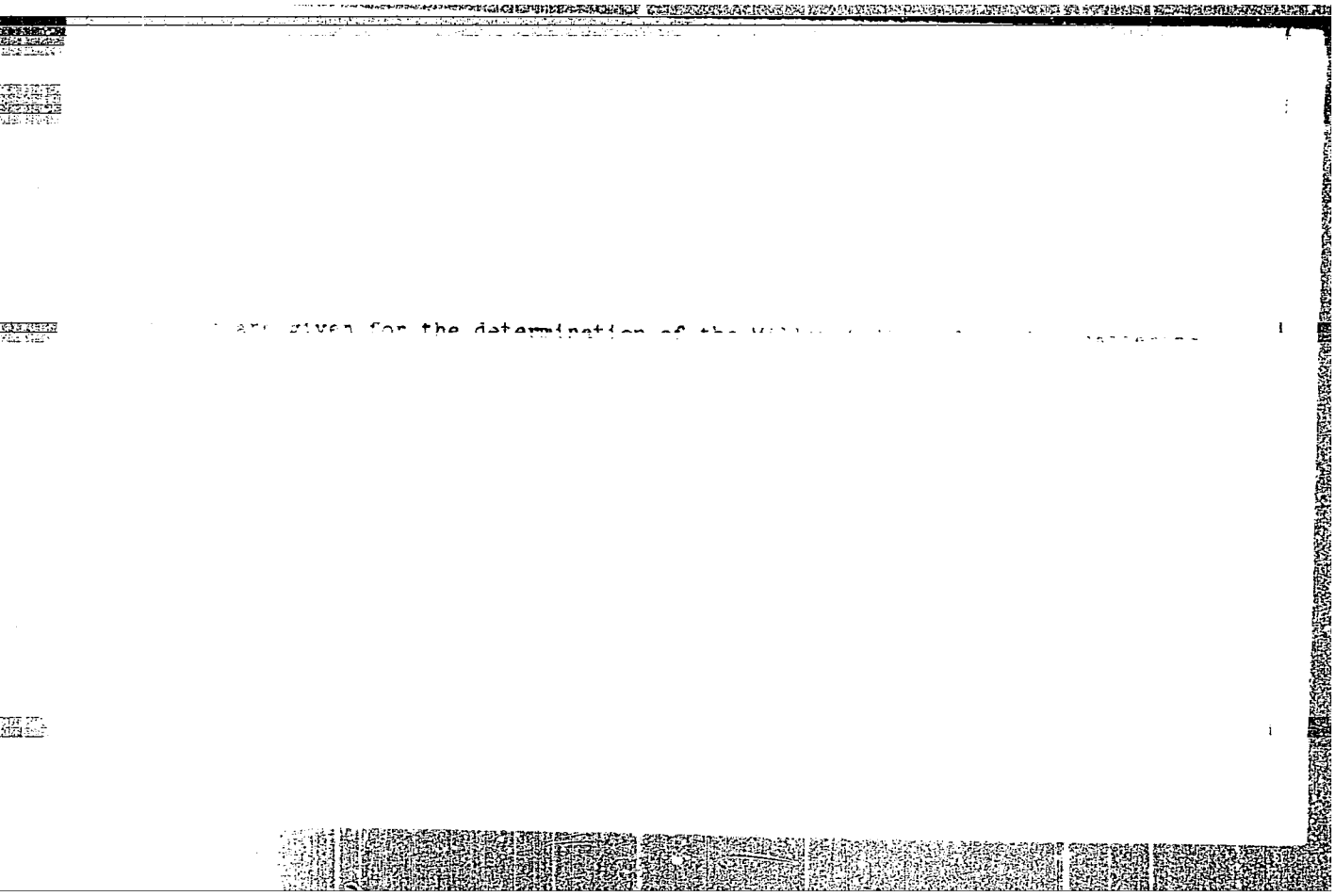

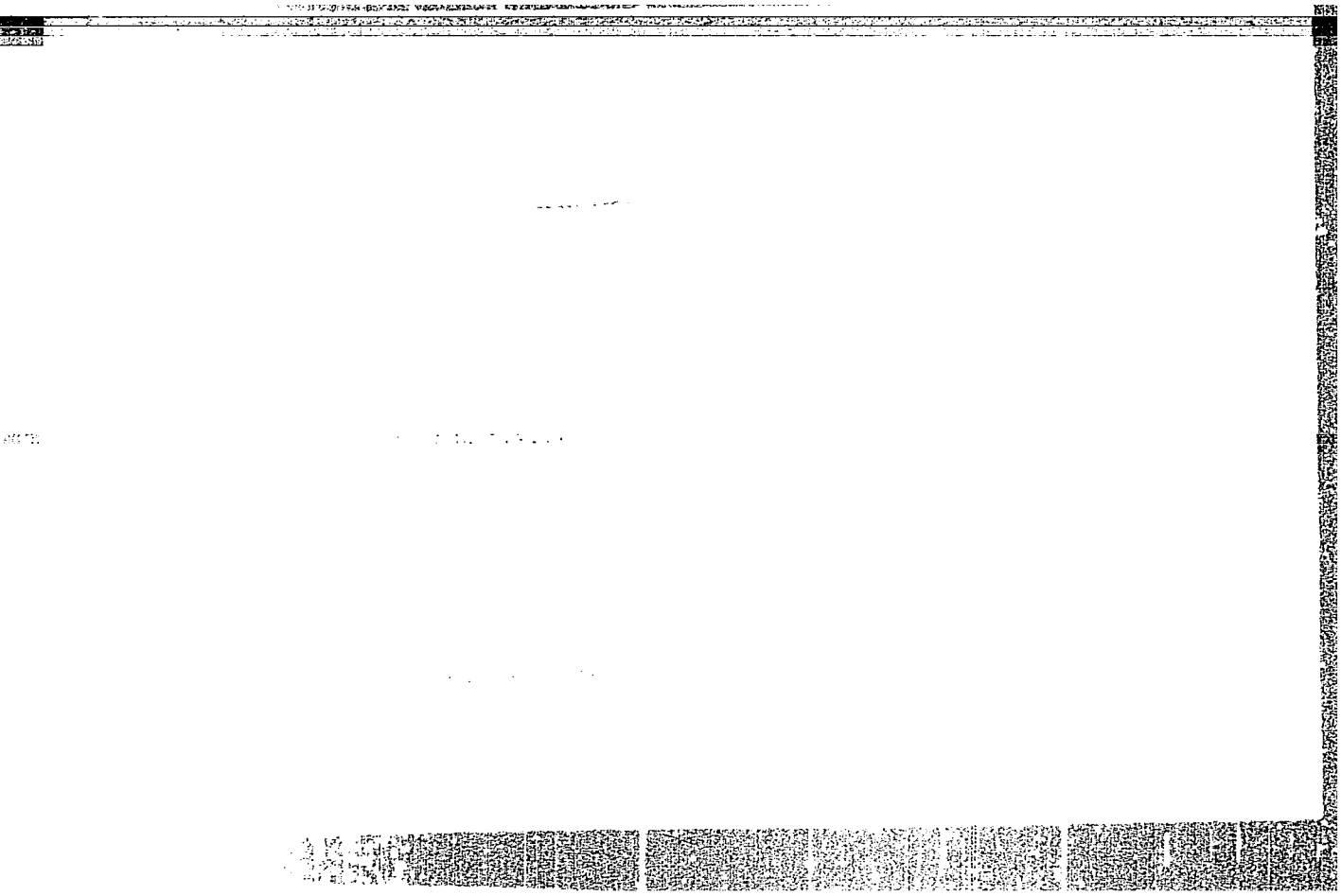

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721520002-2"

ABRIKOSOV, A.A.; KEMOKLIDZE, M.P.; KHALATNIKOV, I.M.

Hydrodynamic theory of collective oscillations of vortices in superconductors of the second kind. Zhur. eksp. i teor. fiz. 48 no.2:765-767 F '65. (MIRA 18:11)

1. Ob"yedinennyy institut yadernykh issledovaniy.

L 22131-66 EWT(1)/EWP(m)/EPF(n)-2/ETC(m)-6/EWA(1) WW/GG

ACC NR: AP6004942 SOURCE CODE: UR/0056/66/050/001/0243/0250

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63

AUTHOR: Kemoklidze, M. P.; Pitayevskiy, L. P.

ORG: Institute of Physics, Academy of Sciences, Georgian SSR (Insititut fiziki Akademii nauk Gruzinskoy SSR); Institute of Physics Problems, Academy of Sciences, SSSR (Institut fizicheskikh problem Akademii nauk SSSR)

TITLE: Concerning the dynamics of a superfluid Fermi gas

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 1, 1966, 243-250

TOPIC TAGS: superfluidity, Fermi gas, forbidden band, nonlinear differential equation, crystal lattice, correlation statistics

ABSTRACT: The authors derive nonlinear differential equations for the energy gap in a superfluid Fermi gas. Earlier descriptions of the gap were in terms of complicated systems of equations which were not amenable to a general solution. The equation is derived at absolute zero, and even in this case the problem for a real superconductor is complicated by the presence of the crystal lattice in the magnetic field. Consequently, the derivation is confined to an uncharged superfluid Fermi gas. A study of this model makes it possible to resolve certain fundamental

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questions that apply also to the general case. The solution consists essentially of obtaining a linear differential equation for a certain component of the gap, from which it becomes possible then to reconstitute the nonlinear equation for the entire gap. The equation is valid under the condition that the change of gap within a distance of the order of the correlation length is small in time intervals of the order of the reciprocal of the gap. It is shown that the hydrodynamic equations of an ideal liquid can be derived from the equation. The extension of the results to nonzero temperature is planned for the future. The authors thank A. A. Abrikosov, A. F. Andreyev, and L. P. Gor'kov for discussions of the questions considered in this paper. Orig. art. has: 27 formulas.

SUB CODE: 20/ SUBM DATE: 03Aug65/ ORIG REF: 005/ OTH REF: 004

L 41608-66 EWP(m)/EWT(d)/EWT(l) IJP(c) WW

ACC NR: AP6018816 SOURCE CODE: UR/0056/66/050/005/1369/1376

AUTHOR: Kemoklidze, M. P.

ORG: Institute of Physics, Academy of Sciences, Georgian SSR (Institut fiziki Akademii nauk Gruzinskoy SSR)

TITLE: Concerning the dynamics of a superfluid Fermi gas. II. Static equations at finite temperatures

SOURCE: Zh eksper i teor fiz, v. 50, no. 5, 1966, 1369-1376

TOPIC TAGS: superfluidity, Fermi gas, nonlinear equation, critical temperature

ABSTRACT: This is a continuation of earlier work by the author (with L. P. Pitayevskiy, ZhETF v. 50, 243, 1966), where a nonlinear differential equation was obtained for the characteristic parameter Δ (the gap) in a superfluid Fermi gas at absolute zero. In the present paper a similar equation is derived for finite temperatures. Only the static case is considered, when Δ does not depend on the time. The approach used in the paper differs from that by others in that account is taken of the velocity of the normal component of the liquid. The method employed is a generalization of the method employed in the first part of the paper and the essential modification consists in the introduction of the motion of the normal component and allowance for the presence of the magnetic field. The derived nonlinear static equation for Δ possesses Galilean invariance and can be used to determine the asymptotic behavior of Δ at large distances from the axis of a vortex filament. This result is valid for

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ACC NR: AP6018816

arbitrary temperature and goes over into previously known results in the case of zero temperature or the critical temperature. The method proposed can also be generalized to the nonstationary case, to derive equations that depend on the time. This, however, calls for analytic continuation from discrete frequencies to continuous ones. The author thanks L. P. Pitayevskiy for great help with the work and A. A. Abrikosov, A. F. Andreyev, and L. P. Gor'kov for useful discussions. Orig. art. has: 20 formulas.

SUB CODE: 20/ SUBM DATE: 02Dec65/ ORIG REF: 006/ OTH REF: 004

Card 2/2

KEMOV, S.A.

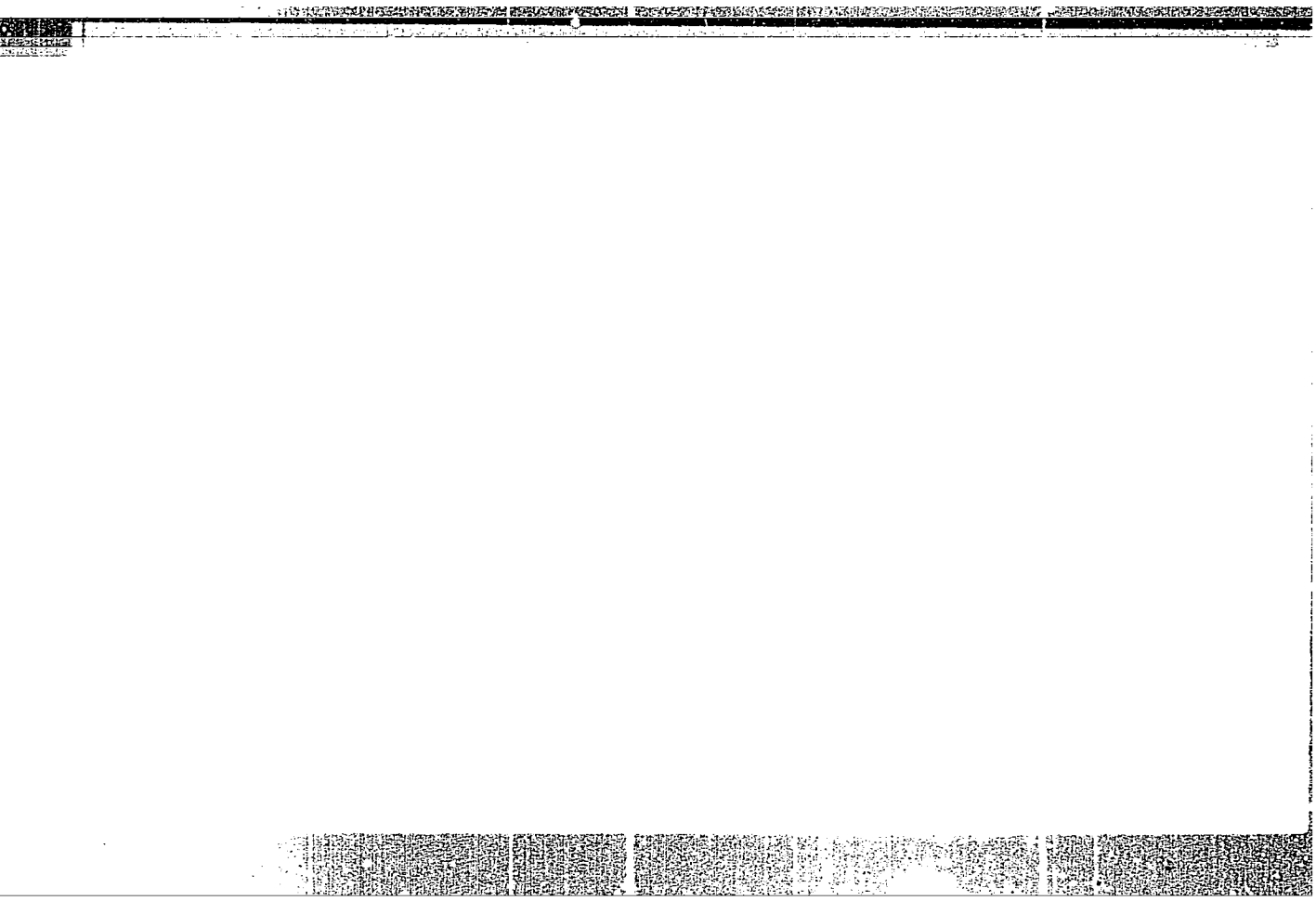
Signalization circuit for multicircuit electric-spark cutting machines. Stan. i instr. 34 no.12:28-29 D '63.
(MIRA 17:11)

ecssed.

ABADZHI, K.I.; BOYTSOV, A.N.; VOLOSEVICH, F.P.; GOBERMAN, P.N.; KEMPINSKIY, M.M.; KUTAY, A.K.; MARINSKIY, F.I.; ODING, G.A.; TAYTS, E.A.; RUBINOV, A.D.; SHTYURMER, G.A.; BRZHEZINSKIY, M.L., kand. tekhn. nauk, retsenzent; SHALAYEVSKIY, O.V., red.; LEYKINA, T.L., red.izd-va; SPERANSKAYA, O.V., tekhn. red.

[Handbook on production control in the machinery industry] Spravochnik po proizvodstvennomu kontroliu v mashinostroenii. Izd.2., perer. i dop. Moskva, Mashgiz, 1964. 748 p. (MIRA 17:3)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721520002-2"



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KEMPINSKIY, M.M.; NEVEL'SON, M.S.

Precision and reliability of equipment for the automatic control of dimensions. Vzaim. tekh. izm. v mashinostr.; nauch.-tekh. sbor. no.4:386-394 '64 (MIRA 18:1)

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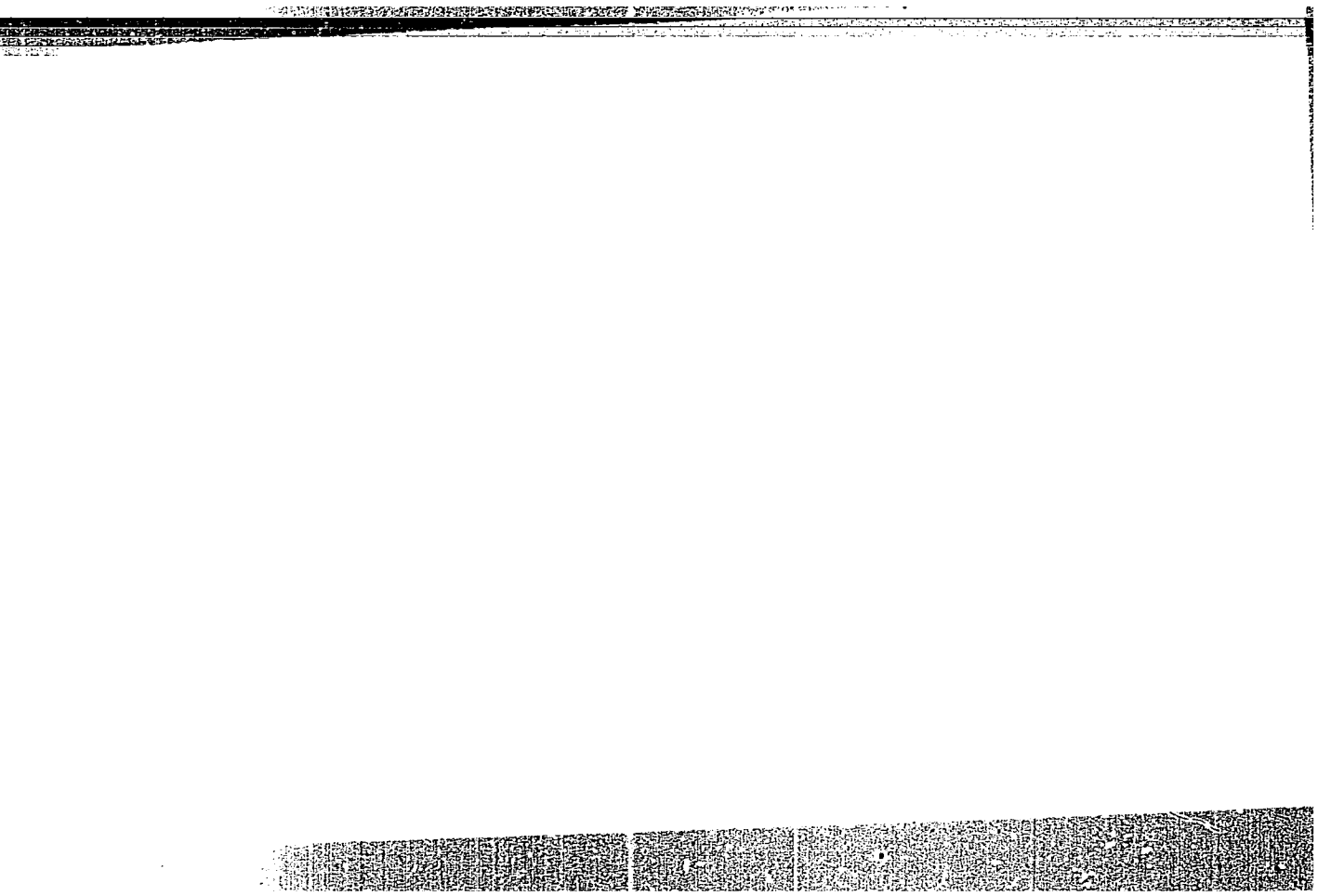

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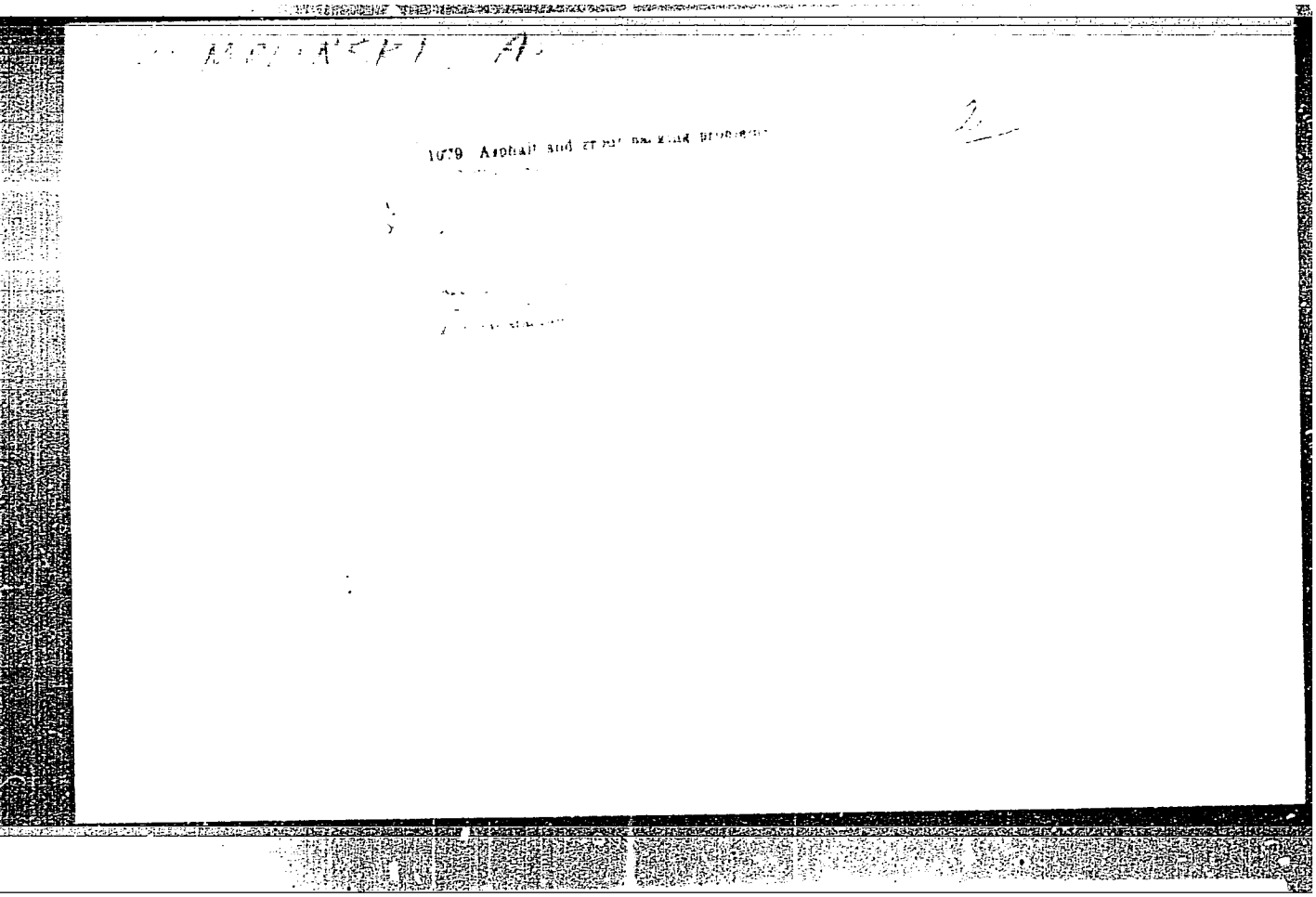
SUBMITTED: 00 ENCL: 00 SUB CODE: IE

BIBI, R.A.; KISELEV, A.V.; KOVALEVA, N.V.; KHOLMS, Dzh. M.; KEMPLIN, M., Ye.R.

Adsorption and state of CO_2, SF_6, and NH_3 on the surface of graphitized carbon black. Part 2. Zhur. fiz. khim. 38 no.4:939-946 Ap '64. (MIRA 17:6)

1. Gruppa khimii poverkhnosti Instituta fizicheskoy khimii AN SSSR i Khimicheskoye otdeleniye Amkhertskogo kolledzha, SShA [Soyedinennyye Shtaty Ameriki].



KEMPLINSKI, A.; GOCZAK, W.

"Standardization of Packing," P. 76. (WIADOMOSCI, Vol. 22, No. 2, Feb. 1954. Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 1, Jan. 1955 Uncl.

KEMPNER, M. L.

"Application of the Method of Dynamic Yielding and Rigidity for Calculating Bend Vibrations in Aircraft-Engine Crankshafts." Thesis for degree of Cand. Technical Sci. Sub 19 Jun 50, Moscow Order of Lenin Aviation Inst imeni Sergo Ordzhonikidze.

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

KEMPNER, M. L.

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 542 - I

Call No.: AF620011

BOOK

Author: KEMPNER, M. L.

Full Title: METHODS OF DYNAMIC FLEXIBILITIES AND RIGIDITIES FOR THE COMPUTATION OF BENDING VIBRATIONS OF ELASTIC SYSTEMS WITH MANY DEGREES OF FREEDOM [See: Orig. Agency & Purpose]

Transliterated Title: Metody dinamicheskikh podatlivostey i zhestkostey dlya rascheta izgibnykh kolebaniy uprugikh sistem so mnogimi stepenyami svobody

PUBLISHING DATA

Originating Agency: Academy of Sciences, USSR. Institute of Machine Design. Poperechnyye kolebaniya i kriticheskiye skorosti (Transverse Vibrations and Critical Speeds). First Collection

Publishing House: Academy of Sciences, USSR

Date: 1951 No. pp.: 53 (78-130) No. of copies: 3,000

Editorial Staff

Responsible Editor: Serensen, S. V., Active Member, Academy of Sciences, Ukrainian S.S.R.

PURPOSE: This work is one of the seven (AID 540 - 546) which were discussed in a seminar on vibrations in the Institute of Machine Design, and is reprinted for its practical interest.

TEXT DATA

Coverage: The introduction mentions the numerous sources and writers whom the author used, and states that in the application of the method of dynamic flexibilities the given system is partitioned into separate sections and the resulting frequency equation is generally solved graphically. After defining dynamic rigidity and flexibility mathematically, the author discusses dynamic flexibility of bars, the method of dynamic flexibility which he describes as analogous to the method of forces and the uses of "local" symmetry. He then presents vibrations of a beam on many supports, introduces the method of dynamic rigidity as analogous to the method of deformation, and describes not fully built-in systems and the frequencies of their natural (or free) vibrations. Many formulae, 38 diagrams and graphs.

No. of References: Total 17, 1934-1950, 14 Russian, 2 English and 1 translated from English.

Facilities: None

KEMPNER, M.L.

Processes of dynamic pliability and rigidity for the calculation of bending vibrations of elastic systems with several degrees of freedom. Poper.koleb.i krit.skor. no.1:78-130 '51. (MLRA 7:4)
(Vibration) (Elastic rods and wires)

KEMPNER, M.L.

Computation of pendulum-type antivibration devices for the control of flexure vibrations of crankshafts. Poper.koleb.i krit.skor. no.2:172-193 '53. (MLRA 7:4)

(Vibration) (Cranks and crankshafts)

BIRGER, Isaak Arenovich; KEMPNER, M.L., kandidat tekhnicheskikh nauk, dotsent, redaktor; TUBYANSKAYA, redaktor; GLADKIKH, N.N., tekhnicheskiy redaktor.

[Some mathematical methods for solving engineering problems] Nekotorye matematicheskie metody resheniia inzhenernykh zadach. Moskva, Ges.izd-vo obor.promysh. 1956. 149 p. (MLRA 9:5)
(Differential equations, Linear) (Integral equations)

KEMPNER, M.L.

PHASE I BOOK EXPLOITATION 981

Chelyabinskiy Politekhnicheskiy institut.

Raschet na prochnost' elementov konstruktsiy (Analysis of Strength of Structural Elements) Moscow, Mashgiz, 1957. 130 p. (Series: Its Sbornik statey, vyp. 11) 5,000 copies printed.

Reviewers: Grubin, A.N., Doctor of Technical Sciences, Gonchar, V.N., Kempner, M.L., Kudryavtsev, A.F., Romalis, B.L., Skornyakov, V.B., Candidates of Technical Sciences, and Bybin, S.A., Engineer; Ed.: Gokhfel'd, D.A., Candidate of Technical Sciences; Tech. Ed.: Sarafannikova, G.A.; Executive Ed. (Ural-Siberian Branch, Mashgiz): Kravtsov, V.S.

PURPOSE: This book is intended for engineers, technicians and scientific workers.

COVERAGE: The articles in this collection were written by scientific workers of the Chelyabinsk Polytechnical Institute in connection with personnel of the Chelyabinsk Tractor Plant. The articles deal

Card 1/6

AVAILABLE: Library of Congress IS/whl
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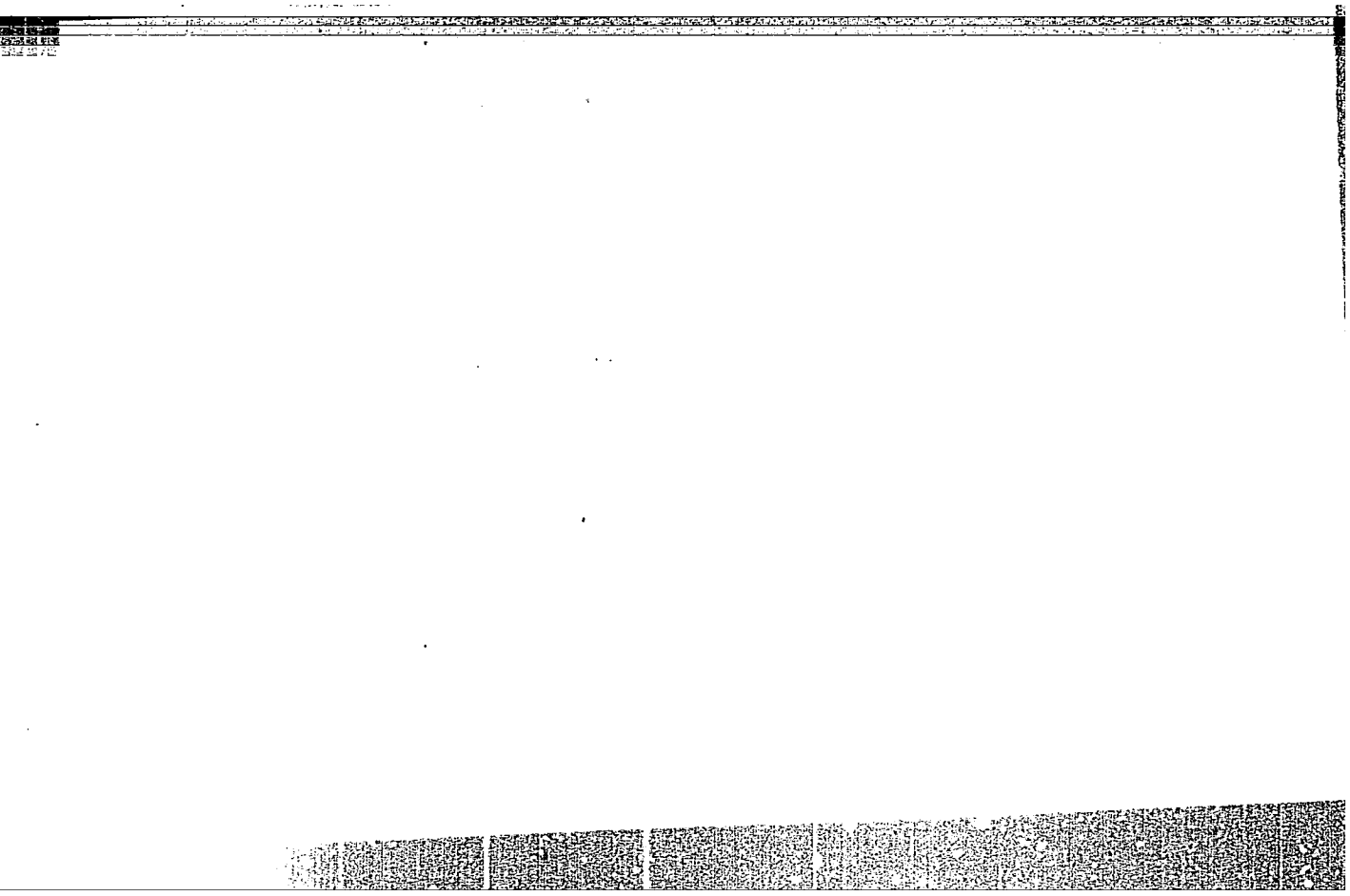

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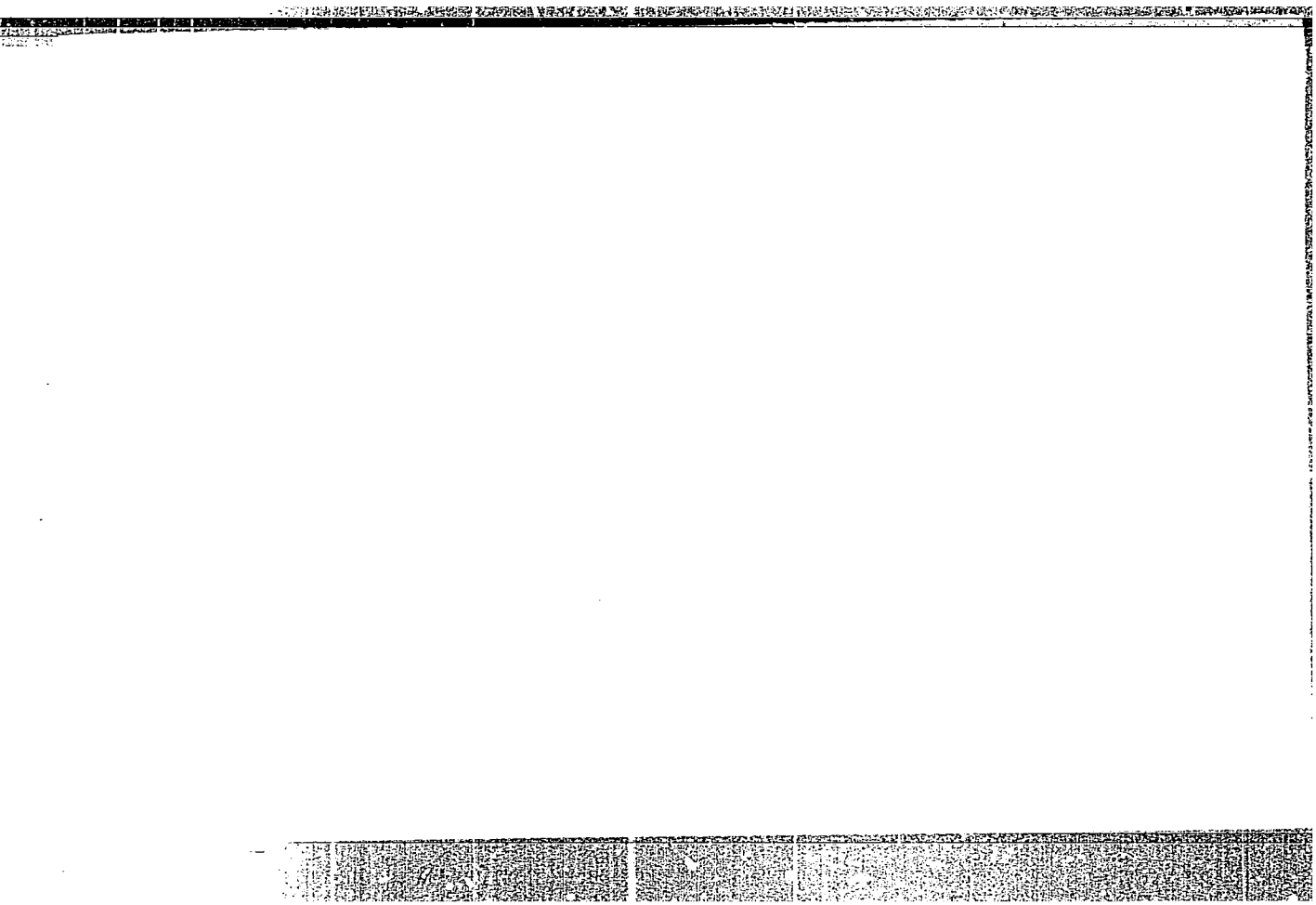

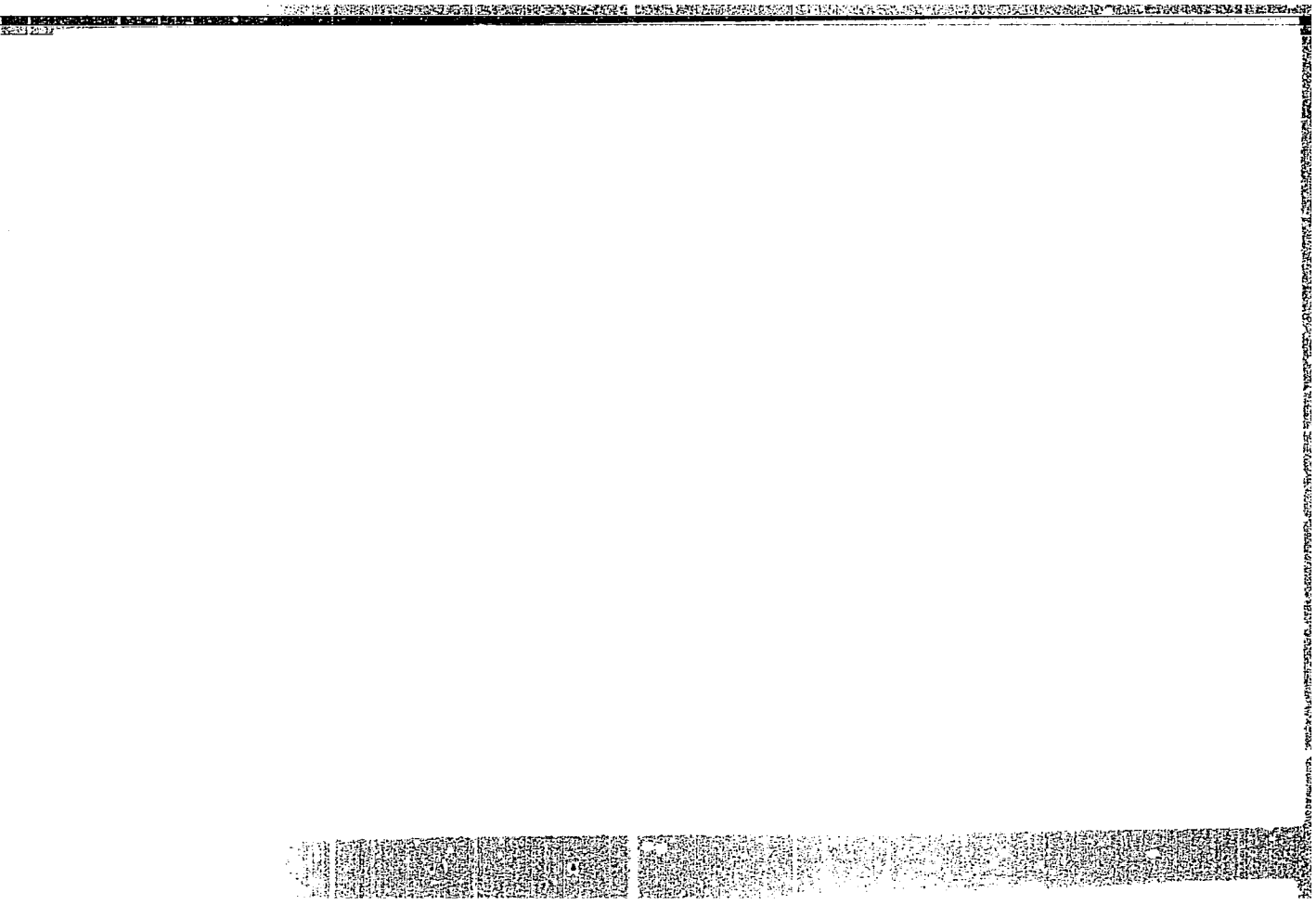

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721520002-2"

KEMPNI, K.

Yugoslavia (430)

Science

Fresnel's experiment with two mirrors. p. 102,
Glasnik Matematicko-Fizicki I Astronomski. Seria 2,
Vol 7, No 2, 1952.

East European Accessions List. Library of Congress
Vol 2, Nos 1 & 2, January-February, 1953.

UNCLASSIFIED

KEMINI, K

KEMINI, K. Methods of control and classification of photographic papers in the Fotokemika Factory. Fotokemijska. p. F6

Vol. 4, No. 2, Feb. 1955
KEMIJA U INDUSTRIJI
TECHNOLOGY
Croatia

So: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, (EEAL), LC, Vol. 4, No. 9, Sept. 1955.

Yugoslavia/Optics - Scientific Photography, K-11

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35979

Author: Kempni, Karlo

Institution: None

Title: Prismatic Developing Instrument for Standard Development

Original Periodical: Kemija u industriji, 1955, 4, No 10, F25-F30; Croatian; German resumé

Abstract: Description of an instrument for sensitrometric development. Strips of tested materials are attached along the outside surfaces of a hexagonal prism. The prism is installed in a cylindrical container made of black polyvinyl-chloride, closed with a cover made of the same material, and is carried into a thermostatic enclosure, where it is brought to the required temperature. After this, the developer is poured into the vessel, the developer being of the same temperature; simultaneously a signal clock is turned on. During the development time the motor turns the prism continuously and alternately

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Yugoslavia/Optics - Scientific Photography, K-11

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35979

Abstract: in both directions by an angle of approximately 30°. The individual strips can be removed from the vessel independently, without interrupting the development of the remaining strips, this being an important factor in the investigation of the kinetics of the development. Results of tests are given.

Card 2/2

KEMPNI, K.

Sensitometric characteristics of photographic papers. Fotokemijska. p. 1. KEMIJA U INDUSTRIJI. (Drustvo kemicara-tehnologa NR Hrvatske. Sekcija kemicara) Zagreb. Vol. 5, no. 3, Mar. 1956.

So. East European Accessions List Vol. 5, No. 9 September, 1956

Kempni, K.

Distr: 4E2d(a)

Sensitometer with a uniform shutter. Karlo Kempni (Fotokemika, Zagreb, Yugoslavia). *Kem. Ind. (Zagreb)* 6, F1-F10(1957)(German summary).—A sensitometer is described in detail and its superiority to known com. app. and others described in the literature is stressed, particularly with regard to the control of exposure time, elimination of indirect light, fitting of different filters, and flexibility of the illuminator assembly. —N. Pavlić

KEMPNI, K.

Connection between the interference phenomena in the moved-apart and brought-nearer Fresnel mirrors. In German. p. 195.

GLASNIK MATEMATICKO-FIZICKI I ASTRONOMSKI. PERIODICUM MATEMATICO PHYSICUM ET ASTRONOMICUM. (Drustvo matematicara i fizicara Hrvatske i Prirodoslovno-matematicki fakultet Sveucilista u Zagrebu) Zagreb, Yugoslavia. Vol. 13, no. 3, 1958.

Monthly List of East European Accessions (EEAI), LC, Vol. 9, no. 2, 1960.
Uncl.

YUGOSLAVIA / Chemical Technology. Chemical Products and Their Applications. Photographic Materials. H-20

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 9534.

Author : Kompni, K.
Inst : Not given.
Title : Characteristics of Photographic Papers With Respect to Surface and Color.

Orig Pub: Komija u industriji, 1958, 7, No 5, F-21--F-28.

Abstract: The surface of photographic papers is characterized by structure (smooth surface and rough surface), by degree of luster (glossy, matte, semimatte), and color shade (white, ivory, chamois). Reflection of light from the paper surface is studied, taking into account the reflection from the background barite layer, the emulsion, and protec-

Card 1/2

K

YUGOSLAVIA/Optics - Physical Optics.

Abs Jour : Ref Zhur Fizika, No 12, 1959, 28437

Author : Kompniy, Karlo
Inst :
Title : Connection Between the Interference Phenomena During the Approach and Separation of Fresnel Mirrors

Orig Pub : Glasnik mat.-fiz. i astron., 1958, 13, No 3, 195-214

Abstract : The author describes experiments with Fresnel double mirrors, carried out in order to study the interference phenomena that occur as a result of diffraction of light at the edges of the mirrors. Allowance for these phenomena makes it possible to explain certain facts observed at very small angles between the mirrors or at very close distances from them. The dependence of the interference pattern on the magnitude of the angle between the mirrors, the distance between them, and the distance from the place of

Card 1/2

YUGOSLAVIA/Optics - Physical Optics.

Abs Jour : Ref Zhur Fizika, No 12, 1959, 28437

KEMPNI, K.

Reality of the sensitometric characteristics of photographic papers. (1st supplement) p. F1-F12.

KEMIJA U INDUSTRIJI. (Drustvo kemicara-tehnologa NRH)
Zagreb, Yugoslavia
Vol. 8, no. 3, Mar. 1959.

Monthly list of Eastern European Accession Index (EEAI) LC vol. 8, No. 11
November 1959
Uncl.

KEMPNI, K.

Sensitometric radiation of X-ray films. Kem ind 9 no.9:F-54--F-61 S '60.

1. "Fotokemika", Zagreb; clan Redakcijskog odbora, "Fotokemijska industrija."

KEMPNI, K. (Zagreb)

Practical application of sensitometric data. Kemija u industriji no.5:243-251 My '62.

KEMPNI, K.

Widening the exposure range of roentgen films. Kem ind 13 no.11: 891-898 N '64.

KEMPNY, Ladislav; HAVELKA, Jaromir

Beetles (Coleoptera) on the cultivated plants in Osoblaha area.
Prir cas slezsky 22 no.4:475-490 '61.

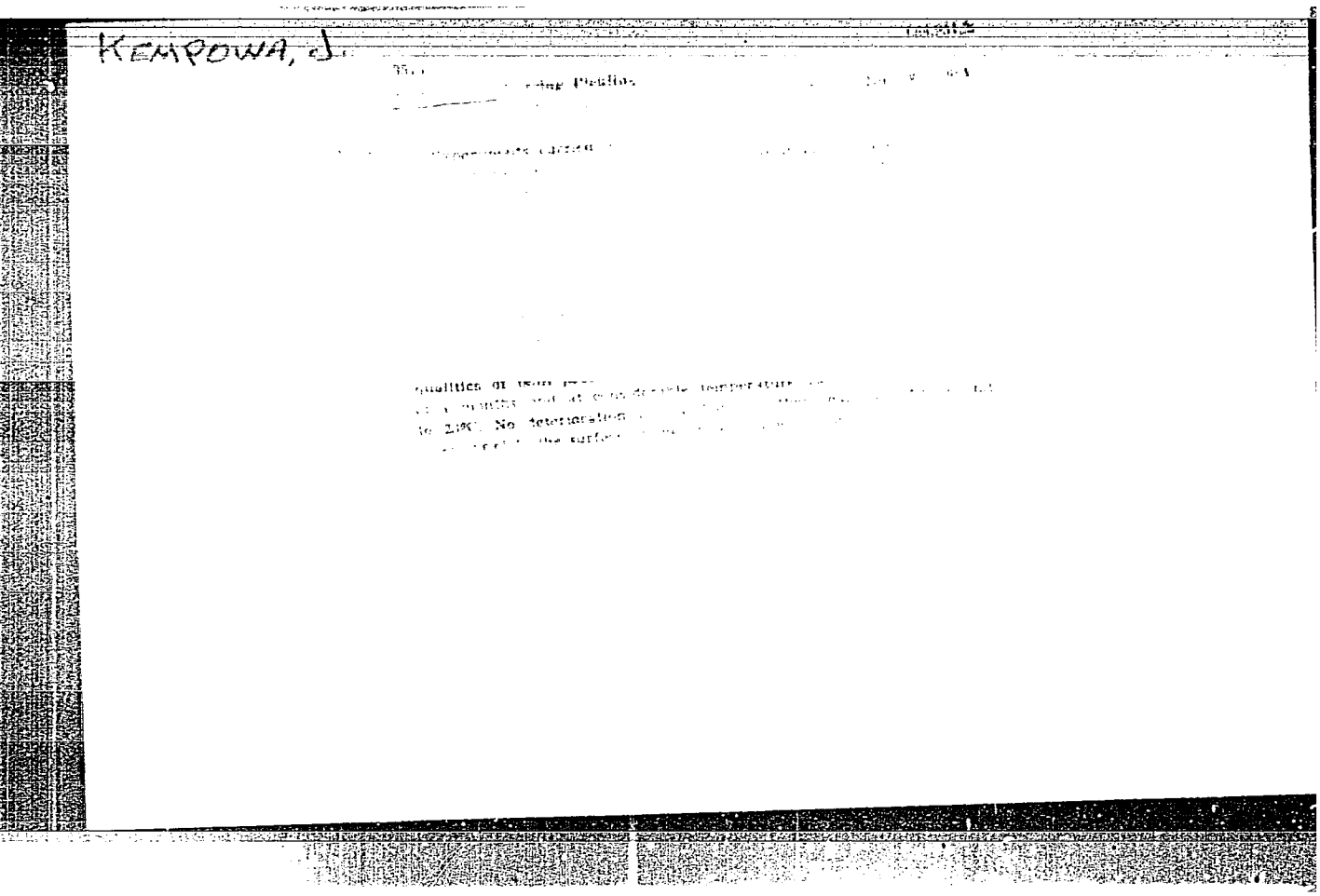
Card 1/1

KOMPONY, L; CE ELAK, J

"Some remarks on the occurrence and synamics of Syrphidae (Diptera) in the spring area of the Nitra River."

BIOLOGIA, Bratislava, Czechoslovakia, Vol. 13, no. 11, 1958

Monthly List of East Europe Accessions (EEAI), LC, Vol. 8, No. 6, Sept 59
Unclas



ZACHOROWSKI, T.; KEMPOWA, J. (Gdynia)

Experiments in evaluating the freshness of fish meat on the basis of organoleptic examinations of canned fish. Rocz nauk roln wet 70 no.1/4:428-431 '60. (EEAI 10:9)

(Fish, Canned)

ZACHOROWSKI, T.; KEMPOWA, J. (Gdynia)

The growth of aerobic bacteria in fish marinades. Rocz nauk roln wet 70 no.1/4:431-433 '60. (EEAI 10:9)

(Bacteria) (Fishery products)

KEMPSKA, Klara; LUDWICZAK, Rufina Stella; WRZECIONO, Urszula

Research on the chemical components of inonotus obliquus. Pt.6. Rocz chemii 36 no.10:1453-1457 '62.

1. Institut fur Organische und Biologische Chemie, Medizinische Akademie, Poznan.

KEMPSKIY, Yu. [Jempski, J.]

Air pollution as a hygienic problem in improving the atmospheric conditions of the industrial center of Upper Silesia. Gig. i san. 23 no.2:89 F '58. (MIRA 11:4)
(UPPER SILESIA--AIR--POLLUTION)

KEMR, Robert

Remarks on some conclusions of the 15th Congress of the World Postal Union. Cs spoje 10 no.2:2-4 Ap '65.

1. Central Administration of Telecommunication, Prague.

ACCESSION NR: AP4010077 S/0129/64/000/001/0052/0055

AUTHOR: Kemskov, G. V.; Dombrovskaya, Ye. V.; Yarkina, V. T.; Gushchin, L. K.; Parfenov, A. K.

TITLE: Intensified nitration by the use of ultrasonics

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 1, 1964, 52-55

TOPIC TAGS: gas nitration, steel nitration, microhardness, ultrasonic reflection, ultrasonic oscillation, picric acid, nitric acid, magnetostrictor, ammonia

ABSTRACT: An investigation to determine the effect of ultrasonic oscillations on gas nitration of steel revealed that ultrasonic waves increase the depth of the resultant nitride and improve the quality of microhardness. The reflection of the ultrasonic from solid and gas media, however, made its use in combination with gas nitration uneconomical. A further study has therefore been made on the effect of ultrasonics on the nitration process in a liquid medium using a device

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ACCESSION NR: AP4010077

shown in the enclosure. The results of the experiments and the information available in literature justify the belief that the liquid nitration process is more effective where a gas phase is absent, and the substance containing the diffused element is in direct contact with the sample. Under such conditions the dissociation reaction will occur on the metal surface. Ultrasonics is found to accelerate the liquid nitration process in a neutral bath through which ammonia is passed. The nitrogen diffusion in a liquid medium is facilitated apparently by the great pressure produced as the cavitation bubbles are shut-in near the surface of the processed metal. Orig. art. has: 4 figures.

ASSOCIATION: Odesskiy politekhnicheskiy institut (Odessa Polytechnical Institute)

SUBMITTED: 00 DATE ACQ: 07Feb64 ENCL: 01

SUB CODE: ML, CH NO REF SOV: 002 OTHER: 000

Card 2/3

KEMR, Robert

International organization and its share in the mail standardization.
Cs spoje 8 no.2:28-30 Ap '63.

1. Ustredni sprava spoju.

KEMTER, G.S., kandidat meditsinskikh nauk

Three observations on strangulated diaphragmatic hernia. Khirurgiia, Moskva, no.1:71-72 Ja '55. (MLRA 8:9)

1. Iz gorodskoy bol'nitsy (glavnyy vrach A.I. Bezuglyy) i oblastnoy bol'nitsy(glavnyy vrach L.M. Shor) Kalinigrada.
(HERNIA, DIAPHRAGMATIC, complications, strangulation)

KEMTER, G.S., kandidat meditsinskikh nauk

Sarcoma of the bladder in a child. Urologiia no.3:72-73 Jl-S '55. (MLRA 8:10)

1. Iz gorodskoy bol'nitsy g. Kaliningrada (glavnyy vrach O.I.Bezuglyy)
(BLADDER, CANCER)

KEMTER, G.S., kandidat meditsinskikh nauk.

Intestinal obstruction. Vest. khir. 77 no.1:120-121 Ja '56
(MLRA 9:5)

1. Iz Kaliningradskoy gorodskoy bol'nitsy No.2 (glavnyy vrach A.I. Bezuglyy)

(INTESTINES--OBSTRUCTIONS)

KEMTER, G.S., kand.med.nauk

Removing a dermoid cyst of the mediastinum. Khirurgiia Supplement: 14-15 '57. (MIRA 11:4)

1. Gorodskaya bol'nitsya Kaliningrada.
(CYSTS) (MEDIASTINUM--TUMORS)

KEMTER, G.S., kand.med.nauk

Case of chronic indurative calculous pancreatitis. Khirurgiia 35 no.3:112-114 Mr '59. (MIRA 12:8)

1. Iz khirurgicheskogo otdeleniya 2-y Kaliningradskoy gorodskoy bol'nitsy (glavnyy vrach O.I.Bezuglyy).
(PANCREATITIS, case reports
chronic indurative calculous pancreatitis, surg. (Rus))

GRINBERG, Ya. I.; KEMTER, G. S., kand. med. nauk

Phlegmona of the cecum. Khirurgiia no.4:135-137 '62.
(MIRA 15:6)

1. Iz khirurgicheskogo otdeleniya Kaliningradskoy gorodskoy bol'nitsy (glavnyy vrach O. I. Bezuglyy)

(CECUM—DISEASES) (PHLEGMON)

KEMTER, G.S., kand. med. nauk

Complete rupture of the right bronchus. Khirurgiia 38 no.12: 95-97 D '62. (MIRA 17:6)

1. Iz khirurgicheskogo otdeleniya Kaliningradskoy gorodskoy bol'nitsy (glavnyy vrach O.I. Bezuglyy).

KEMPA, B.

Vitamin D in the residue of filtered whale oil. p. 333.
(Przemysl Spozywczy, Vol. 10, No. 8, Aug 1956, Krakow, Poland)

SO: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 8, Aug 1957. Uncl.

KEMPA, B.

Preservation of cod livers. p. 10
Vol 8, no. 1, Jan 1956. GOSPODARDA RYBNA. Warsaw, Poland.

So: Eastern European Accession. Vol 5, no. 4, April 1956

WIECZOREK, Zbigniew; SKURSKI, Adam; SZULGA, Teofil; KEMPA, Bozena; CZAJKA, Maria

Phagocytosis of atypical mycobacteria from various sources. Arch. immun. ther. exp. 13 no.1:1-5 '65

Phagocytosis of acid-fast bacilli in the presence of human and animal sera. Ibid.:6-12

1. Department of Mycology, Institute of Immunology and Experimental Therapy, Polish Academy of Sciences, Wroclaw.

BORETTI, Zygmunt, prof. dr inz.; GODLEWSKI, Bohdan, dr inz.; KEMPA, Czeslaw, dr inz.

Tension resistance of lateral construction joints in hydraulic concrete constructions. Gosp wodna 25 no.3:118-122 Mr '65.

KEMPA, E.

H

COUNTRY : POLAND
CATEGORY : Chemical Technology. Chemical Products and Their Application. Water treatment. Sewage.
ABS. JOUR. : RZKhim., No 17, 1959, No. 61272

AUTHOR : Kempa, E.
INSTITUTE : -
TITLE : Design, Construction and Operation of Chlorinating Installations
ORIG. PUB. : Gas, woda i techn. sanit., 1958, 32, No 9, 335-343

ABSTRACT : No abstract.

Card: 1/1

KEMPA, Edward

Protection of atmosphere , waters and soil, and spacial planning; reflections from a conference. Przegl techn 84 no.51:10 22 D'63.